This Page Is Inserted by IFW Operations and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.

WHAT IS CLAIMED IS:

5

10

15

20

25

- 1. A flat-panel-display substrate formed by sintering a mould comprising glass powder and a filler made of metal oxide and/or semi-metal oxide; the glass powder including alkaline-earth oxide; 15 to 50% by weight of silicon oxide; and no greater than 2% by weight of boron oxide; the filler being at a concentration of 10 to 30% by volume of the total amount of the glass powder and the filler in the mould; the mould's average coefficient of linear thermal expansion being from 7 to 9.5 ppm/°C in a temperature range of 25 to 700 °C; and a sintered body obtained from the mould including crystal phases.
- 2. The flat-panel-display substrate according to claim 1, wherein the glass powder includes 35 to 55% by weight of alkaline-earth oxide.
- 3. The flat-panel-display substrate according to claim 1, wherein the glass powder includes no greater than 1% by weight of alkali-metal oxide and no greater than 1% by weight of phosphorous oxide.
- 4. The flat-panel-display substrate according to claim 1, wherein the glass powder includes, as essential components, 25 to 50% by weight of silicon oxide; 5 to 15% by weight of aluminum oxide; and 5 to 30% by weight of titanium oxide and/or zirconium oxide; and as optional components, no greater than 45%

by weight of barium oxide; no greater than 45% by weight of strontium oxide; no greater than 15% by weight of calcium oxide; and no greater than 15% by weight of magnesium oxide.

5

10

15

- 5. The flat-panel-display substrate according to claim 1, wherein the filler includes at least one of alumina, forsterite, and zirconia.
- 6. The flat-panel-display substrate according to claim 1, which is used for a thin film EL element or a plasma display panel.
- 7. A thin film EL element having a lower electrode layer; an insulator layer; a light emission layer; and an upper electrode layer formed on one side of the flat-panel-display substrate according to claim 1.
- 8. The flat-panel-display substrate according to claim 7, wherein the insulator layer includes lead and/or bismuth.